



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,452	10/18/2002	Chung-E Wang		1359

33275 7590 11/15/2005

CHUNG-E WANG  
845 WEST COVE WAY  
SACRAMENTO, CA 95831

EXAMINER

TRAN, ELLEN C

ART UNIT PAPER NUMBER

2134

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/065,452	Applicant(s) WANG, CHUNG-E	
	Examiner Ellen C. Tran	Art Unit 2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 \*Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

1. This action is responsive to communication: filed on 18 October 2002.
2. Claims 1-7 are currently pending in this application. Claims 1, 2, 4, 5, and 7 are independent claims.

***Claim Objections***

3. Claims 6 and 7 are objected to because of the following informalities: It appears that claim 6 should have a preamble that it depends from independent claim 5. In addition claim 7, contains two sentences, either another claim should be added or text that relates “a method of introducing randomness into the process or arithmetic coding by changing the order of dividing an interval into smaller interval with an encryption key” to the rest of claim 7 should be added. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-7 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Each claim teaches solely to the abstract manipulation of data.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1-7**, are rejected under 35 U.S.C. 102(b) as being anticipated by Barbir U.S. Patent No. 6,122,379 (hereinafter '379).

**As to independent claim 1, "A method of introducing randomness into the process of the dictionary encoding of Lampel-Ziv data compression" is taught in '379 col. 7, lines 62-67;**

**"by shuffling the initial values of the dictionary with the encryption key" is shown in '379 col. 5, lines 26-33.**

**As to independent claim 2, "A method for combining a random shuffle with a Lampel-Ziv data compression to achieve a simultaneous data compression and encryption, comprised of the following steps:" is disclosed in '379 col. 7, lines 62-67;**

**"a) use the encryption key to shuffle the initial values of the dictionary randomly" is shown in '379 col. 5, lines 26-33;**

**"b) compress the input string normally" is taught in '379 col. 11, lines 54-67;**

**"c) perform the bit-wise XOR operation on the compressed result and the encryption key" is shown in '379 col. 5, lines 26-33 and col. 2, lines 11-23.**

**As to dependent claim 3, "where step a) is comprised of the following step: a) If the dictionary doesn't have any initial values, initialize the dictionary with a particular set of**

values and then use the encryption key to shuffle the dictionary” is disclosed in ‘379 col. 7, lines 22-45.

As to independent claim 4, “A cryptographic method of concealing information in the process of Huffman coding by altering the Huffman tree with an encryption key” is taught in ‘379 col. 7, line 62 through col. 8, line 44.

As to independent claim 5, “A method of shuffling the Huffman tree with an encryption key comprised of the following steps:” is taught in ‘379 col. 7, lines 22-67;

“a) associate each interior node with a bit of the encryption key” is shown in ‘379 col. 8, lines 36-67.

As to dependent claim 6, “b) Swap the left child and the right child of an interior node, if the corresponding encryption bit is 1” is disclosed in ‘379 col. 6, lines 10 through col. 7, line 21.

As to independent claim 7, “A method of introducing randomness into the process of the arithmetic coding by shuffling the interval table with an encryption key” is taught in ‘379 col. 6, lines 10 through col. 7, line 21;

“That is, a method of introducing randomness into the process of the arithmetic coding by changing the order of dividing an interval into smaller intervals with an encryption key” is shown in ‘379 col. 6, lines 37-55.

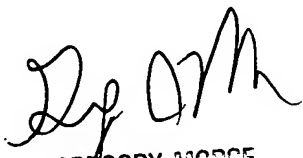
*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ellen C Tran whose telephone number is (571) 272-3842. The examiner can normally be reached from 6:30 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory A Morse can be reached on (571) 272-3838. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ellen Tran  
Patent Examiner  
Technology Center 2134  
31 October 2005

  
GREGORY MORSE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100